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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,010	12/08/2003	Yugo Koyama	117659	9135
25944	7590	03/08/2006		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER SHINGLETON, MICHAEL B	
			ART UNIT 2817	PAPER NUMBER

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/729,010

Applicant(s)

KOYAMA ET AL.

Examiner

Michael B. Shingleton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-32 is/are pending in the application.
- 4a) Of the above claim(s) 28-31 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-27 is/are allowed.
- 6) ☒ Claim(s) 1 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Michael B. Shingleton
MICHAEL B SHINGLETON
PRIMARY EXAMINER
ART UNIT 2817

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The terminal disclaimer dated 12-20-2005 has been accepted.

Claim Objections

Claim 1 is objected to because of the following informalities: In claim 1 line 12 “the lead frame” is clearly a typographical error and should be “the lead frames” and such is the case with this terminology “said lead frame” in line 16 of claim 1. Claim 1 also presents the terminology “said lead frame” on line 15 where it is clear from the specification that “said other of said lead frames” was meant. Appropriate correction is required.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 32 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Koichi JP 2002-330027 (Koichi) of record as evidenced by Waki et al. 5,479,051 (Waki ‘051).

Figures 1, 6 and 7, and the relevant text of Koichi discloses a piezoelectric oscillator having a plurality of leads 17a-f formed of two lead frames. The “one of said lead frames” being the right-hand lead frame and the “other of said lead frames” being the one on the left-hand side. Figure 6 of Koichi also shows the separate nature of the two lead frames. Such an interpretation is reasonable within the semiconductor package art. Note that Waki ‘051 shows that element 25a is described as one lead frame while element 25b is described as another lead frame (See column 8, around line 24 of Waki). Note that Figure 6 of Koichi shows two “connection terminals” 17f on the upper side of the left-hand lead frame and these terminals are connected to the piezoelectric resonator 53 so as to “write in compensation data on the side face of a quartz resonator”. The bottom sides of the right-hand lead frame form the mounting terminals. Thus the connection terminals are formed on one of the lead frames on one side and the mounting terminals are formed on the other of the lead frames on the other side. The connection terminals and the mounting terminals are distanced one from another being arrayed in multiple tiers in a direction substantially perpendicular to a main plane of at least one of the lead frames as is clearly illustrated. The piezoelectric element is sealed in “3” and mounted on the connection terminals 17f as is clearly illustrated. The element 6 forms an IC of the oscillation circuit and is mounted on the other of said lead frame. Both the lead frames and the piezoelectric resonator being sealed with in the package

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such that the principal surface of the mounting terminals i.e. the bottom sides of the right-hand lead frame are exposed outward. Element 18 is resin. Note that the piezoelectric oscillator is for use in a "cellular phone" which is a well-known type of electronic device.

Response to Arguments

Applicant's arguments filed 12-20-2005 have been fully considered but they are not persuasive. Applicant argues that Koichi includes "one lead frame". Such is disagreed with for the examiner has cited Waki '051 that clearly shows that one fair and reasonable interpretation of Koichi would be that there are at least two lead frames. Note that element 25a of Waki '051 is one lead frame and element 25b of Waki '051 forms another lead frame. Applicant also stated that Koichi does not show "connection terminals and said mounting terminals distanced one from another being arrayed in multiple tiers in a direction substantially perpendicular to a main plane of the lead frame". The examiner respectfully disagrees for note that the connection terminals are higher in elevation than the mounting terminals in Koichi.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Claims 3, and 5-28 are allowable over the prior art of record. (Note that this includes the withdrawn claims 6-10, 12-22, 24 and because of the direct or indirect dependency on claim 3.)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael B. Shingleton whose telephone number is (571) 272-1770.

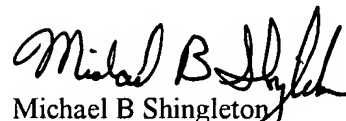
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal, can be reached on (571)272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306 and after July 15, 2005 the fax number will be 571-273-8300. Note that old fax number (703-872-9306) will be service until September 15, 2005.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MBS

February 22, 2006


Michael B Shingleton
Primary Examiner
Group Art Unit 2817